

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as amended and in light of the following discussion, is respectfully requested.

Claims 1, 3, 5-8, 11, and 12 are pending in this application. Claims 1, 3, and 5-7 are amended by the present amendment with support in the originally filed disclosure at least at Figures 5 and 6 and the corresponding descriptions in the Specification. Thus, no new matter is added.

The outstanding Office Action rejected Claims 1, 3, 5-8, 11, and 12 under 35 U.S.C. 35 U.S.C. §103(a) as unpatentable over Yanagi, et al. (U.S. Patent No. 6,111,490, herein “Yanagi”) with an assertion that the claimed features that Yanagi concededly fails to teach are an obvious design choice.

Applicants respectfully traverse the rejection of pending Claims 1, 3, 5-8, 11, and 12 under 35 U.S.C. §103(a).

With regard to the pending claims, the outstanding Office Action asserts Yanagi as teaching some elements and asserts features not taught by Yanagi as “an obvious matter of design choice.” This assertion of “an obvious matter of design choice” was addressed in the previously filed response and is discussed again below.

Amended Claim 1 recites a magnetic field generating means “including a pair of opposed coils fixed so as to sandwich the superconductor such that the **central axis of the superconductor is perpendicular to a surface of each coil, the surface of each coil being flat and each coil spirally winding toward the center thereof**, the coils generating a conical-shaped magnetic field distribution therebetween.”

Yanagi, at column 8, lines 45-50, describes the magnetizing coil 4 “fixed inside a bobbin.” Thus, Yanagi does not teach or suggest “**each coil spirally winding toward the center thereof**,” as recited by amended Claim 1.

Further, Yanagi fails to teach “the **central axis of the superconductor is perpendicular to a surface of each coil, the surface of each coil being flat,**” as recited by amended Claim 1. Each figure showing the magnetizing coil 4 shows the 50 winding turns fixed inside a bobbin by impregnation with resin, as described at column 8. Thus, the orientation of a surface, “the surface...being flat,” with respect to the central axis of the superconductor is not shown. Further, Fig. 29a shows coils 42 that also fail to teach “winding toward the center thereof,” as required by amended Claim 1.

The significance of the above-discussed deficiencies of Yanagi with regard to amended Claim 1 relates to the recitation in Claim 1 of “magnetic field generating means that generates a magnetic field equal to or higher than a critical magnetic field in which the intrusion of a magnetic flux into the superconductor starts.”

A fully magnetized superconductor generates a cone-shaped magnetic field distribution having the highest magnetic field at the center thereof. The “pair of opposed coils,” as defined by amended Claim 1, also generate a cone-shaped magnetic field distribution therebetween. Thus, the superconductor can be magnetized efficiently to generate “a magnetic field equal to or higher than a critical magnetic field in which the intrusion of a magnetic flux into the superconductor starts,” as recited by Claim 1.

In Yanagi, on the other hand, column 10, lines 30-34, describes that “the captured magnetic field of a superconductor provided by pulsed magnetization is determined solely by the magnitude of the magnetic field applied to the superconductor regardless of the pulse width or the configuration of the magnetizing coil.”

Further, as discussed in the previous response, MPEP § 2144.04(VI)(C) states that the mere fact that one **could** rearrange parts in the reference is not, by itself, sufficient to support a finding of obviousness. The **prior art must provide a motivation or reason for the rearrangement**, according to the MPEP, without the benefit of the Applicants’ Specification.

In this case, the outstanding Office Action cites no motivation in Yanagi or any prior art reference for the features that are asserted as an obvious matter of design choice. Without an articulation of a motivation in the prior art, the assertions represent impermissible hindsight reasoning.

Because Yanagi fails to teach or suggest at least “the magnetic field generating means including a pair of opposed coils fixed so as to sandwich the superconductor such that the central axis of the superconductor is perpendicular to a surface of each coil, the surface of each coil being flat and each coil spirally winding toward the center thereof,” as recited by amended independent Claims 1, 5, 6, and 7, and also because the assertions of “an obvious matter of design choice” are not properly established in accordance with MPEP § 2144.04(VI)(C) and additionally fail to cure the deficiencies of Yanagi with regard to Claims 1 and 5-7, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) of Claim 1, Claim 3, which depends therefrom, Claims 5, 6, and 7, and Claims 8, 11, and 12, which depend therefrom, be withdrawn.

Accordingly, the outstanding rejections are traversed and the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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